

Abstract

This qualitative study explores incumbent firms' behavior in sustainability transitions, specifically the transition toward sustainable food production through a case study of the Norwegian food industry. The study delves into the discourse on resource efficiency and value creation in food by-product and waste valorization. To illustrate this objective, the two main cases—the meat and dairy sector—have been chosen because the incumbent firms in these two sectors play an important role in the Norwegian food industry. In drawing on the multi-level perspective in the transition literature, dynamic capabilities and absorptive capacity from management studies, the global value chain perspective, as well as governance theory in political science, the study explores and uncovers various underlying dynamics and processes of industrial firms' behaviors and strategies in a transition context.

This study investigates how efficient the firms are in using their by-product resources by exploring actual and potential value chains and identifying sustainable pathways of valorizing bio-based resources such as by-products and organic wastes—or so-called bio-residuals. The multi-level perspective examines contextual factors at different levels that affect the firms' strategies in developing innovations for by-product valorization. In particular, this study scrutinizes their managerial efforts—an absorptive capacity to generate new knowledge and the dynamic capabilities to develop by-product innovation strategies and mobilize necessary resources. The study finds that incumbent firms practice different strategies with respect to by-product valorization—first-into-niches and follow-into-niches.

Transition literature mainly frame incumbents as opposed to change as they are bound to their existing regimes, path dependencies, and vested interests. This dissertation thus confronts this mainstream argument of transition literature on the role of incumbents. In the present study, incumbents engage and partake in transitions. This study contributes to the limited literature on the active role of incumbents in studies of sustainability transitions. Its particular contribution is to address the limited attention of the current transition literature on “**regime-to-niche dynamics**” and incumbents, which has been regarded as “neglected dynamics”. The incumbents' diversification strategy in practicing different modes of behavior is a corrective to the overemphasis on bottom-up dynamics—or so-called “niche-to-regime dynamics”—which privileges a niche focus, holding that change inevitably comes from below. It is important to avoid misrepresenting crucial actors and dynamics of change in sustainability transitions. Food incumbent firms should further expand their regime-to-niche dynamics and be open for more radical innovations coming from the niches. The study also suggests another angle to study niche-regime dynamics—transition literature should not only focus on niches or regimes, but also aim at promoting *a mutual interaction and collaboration* between these two levels.